

I. STATE, DEVELOPMENT AND PROSPECTS OF THE ELECTRONIC COMMUNICATIONS MARKET	3
1. Global development of the electronic communications market	3
2. Development prospects of the global electronic communications market	8
3. Legal and regulatory framework	11
4. Volume and structure of the Bulgarian electronic communications market	12
4.1. Volume of the market	12
4.2. Structure of the market	13
5. Prospects for development of the Bulgarian electronic communications market	17

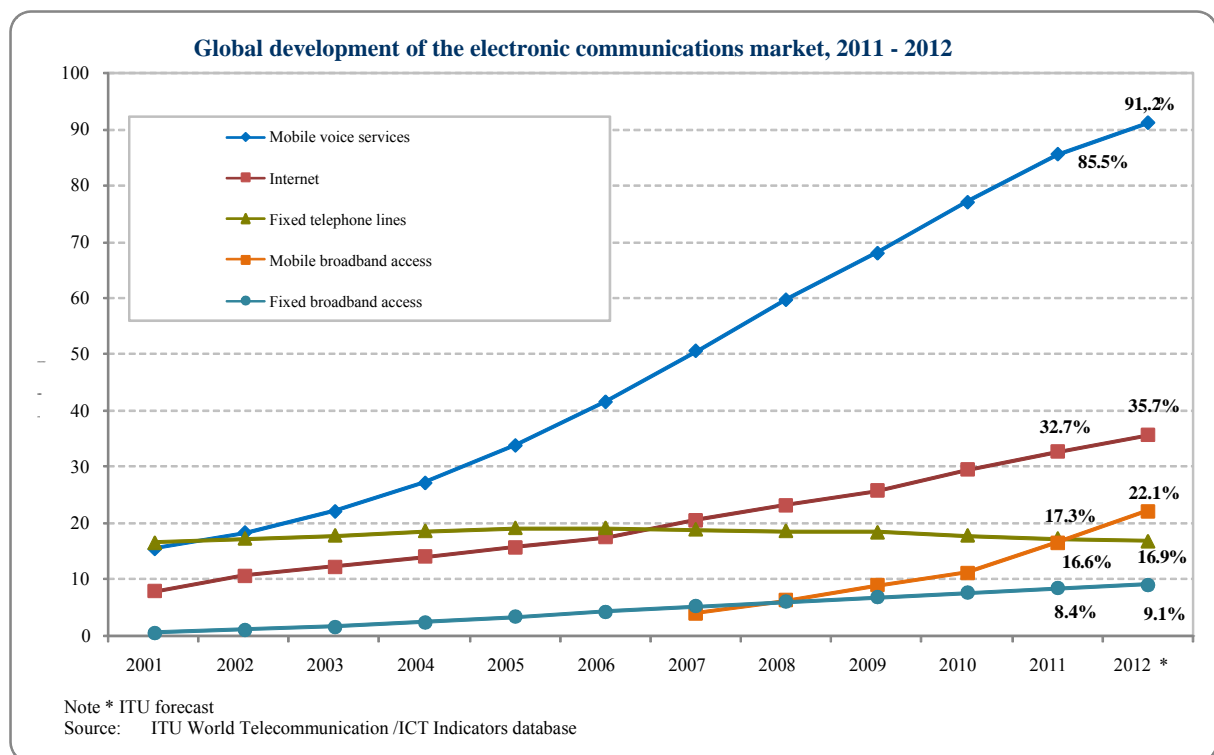
I. STATE, DEVELOPMENT AND PROSPECTS OF THE ELECTRONIC COMMUNICATIONS MARKET

1. Global development of the electronic communications market

Volume and growth of the sector

According to data of one of the leading IT market research companies in the world – **Gartner Inc**, in 2012, the total volume of the telecommunication services market reached USD 1.66¹ trillion, which is a drop of only 0.1%, compared to data reported by the analytical company for 2011.

The figure below reflects the world electronic communications development over the last twelve years (2001 - 2012).



Source: ITU World Telecommunication/ICT indicators database

Figure 1

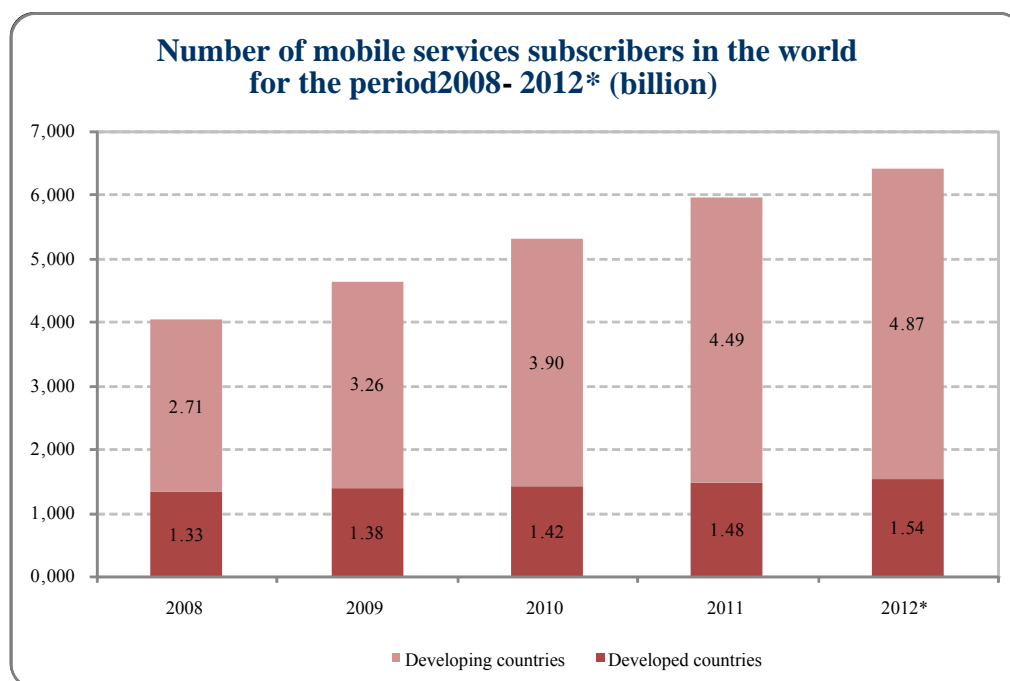
The data presented on Figure 1 shows that for another consecutive year the leading services on the global electronic communications market continued to be the mobile voice services where penetration reached 91.2% (an increase of 5.71 percentage points since 2011). Nearly the same increase, by 5.57 percentage points, was registered in the mobile broadband access. The trend concerning fixed services also remained unchanged. Penetration of fixed voice services continued to decrease, although at very slow rates, as it reached 16.9% in 2012 (0.40 percentage points less, compared to 2011), while an insignificant growth of 0.64 percentage points was observed in the fixed broadband access for a one-year period.

Mobile services

In 2012, the trend towards increase in the use of mobile services worldwide was

¹ <http://www.gartner.com/newsroom/id/2292815>

preserved. The data presented on Figure 2 show that subscribers of mobile services worldwide are already nearing 6.5 billion, as a growth of 7.52% was reported, compared to their number in 2011.



Note: The data for 2012 are based on ITU's forecast

Source: ITU Key Global Telecom Indicators for the World Telecommunication Service Sector

Figure 2

According to the data presented on Figure 2, for the period 2008 – 2012, the number of active subscribers of mobile services has increased by 59%, with fastest growth in Africa (by 104%) and the Asia and Pacific region (86%).

According to data of the International Telecommunications Union (ITU), growth of mobile services worldwide is mostly due to developing countries. During the last five years, penetration of mobile services in these countries was up from 49.1% in 2008 to 84.3% at the end of 2012.²

In 2012, the trend concerning the "average degree of penetration of mobile services" index was preserved, as it reached 91.2% (Figure 1), with penetration at 123.6% in the developed countries, and 84.3% in the developing countries. The highest degree of penetration was once again observed in the countries of the Commonwealth of Independent States³ (CIS) – 159% with a growth of 11.8 percentage points since 2011, followed by the countries in Europe – 123.3%, and in North and South America – 105.3%, while the Arab countries and those in the Asia and Pacific region registered a growth of 5.2 and 5.7 percentage points, respectively, compared to the year before. The lowest degree of penetration of mobile services was observed in Africa – 59%, although it registered a growth of 6.2 percentage points in terms of this index for a one-year period.

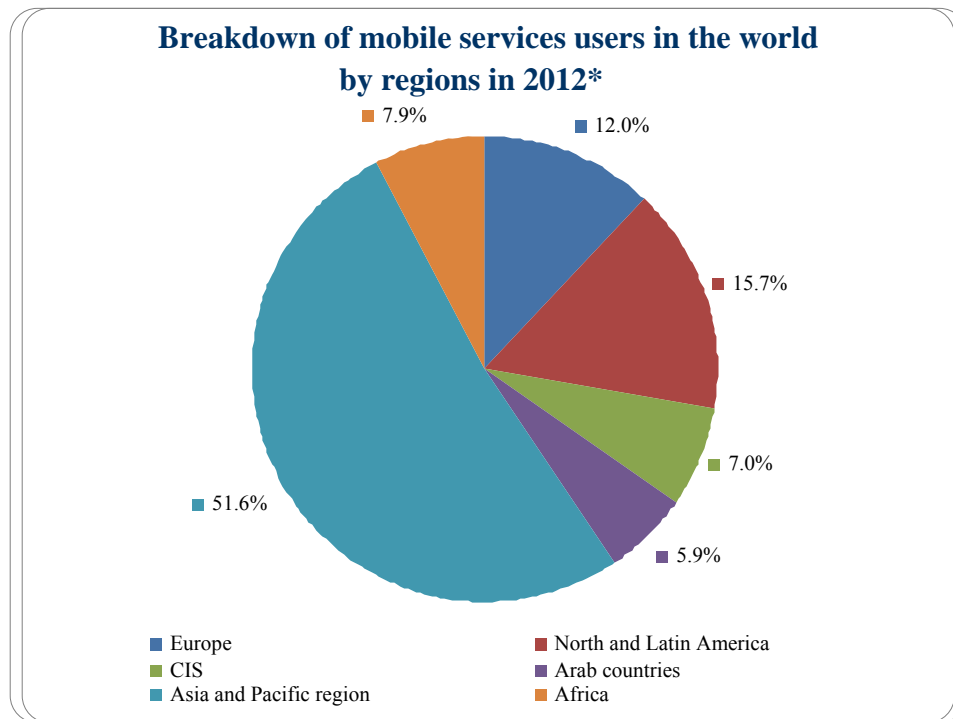
The number of subscribers of mobile services in the developing countries continued to rise at faster rates (increase of 8.59% since 2011), compared to the number of subscribers of mobile services in the developed countries (4.27% up since 2011).

The breakdown of mobile services users in 2012 by region is displayed in the chart

² ITU – Key Global Telecom Indicators for the World Telecommunication Service Sector – http://www.itu.int/ITU-D/ict/statistics/at_glance/KeyTelecom.html

³ Includes the following countries: the Russian Federation, Ukraine, Moldova, Belarus, Georgia, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan and Tajikistan.

below.



Note: The data for 2012 are based on ITU's forecast

Source: ITU Key Global Telecom Indicators for the World Telecommunication Service Sector

Figure 3

In 2012, a minimum growth (1.5 percentage points) was observed in the share of subscribers of mobile services in the countries from the Asia and Pacific region. A slight increase in the same indicator was reported in Africa and the CIS countries of 0.4 and 0.1 percentage points, respectively. In the remaining regions - Arab countries, Europe and the countries from North and South America, an insignificant decline was observed of 0.1, 0.8 and 1 percentage points, respectively.

Fixed voice services

The trend towards decrease in consumption of traditional telephone services provided at a fixed location, continued in 2012, too. According to data of ITU, the number of fixed telephone lines worldwide was 1.186 billion, as the steady downward trend from previous years continued (by 1.50% compared to 2011). A drop was also reported in the degree of penetration of fixed telephone services, with only 16.9% (17.3% in 2011) of the world population using these services at the end of 2012. Penetration of fixed telephone services among the population continued to be highest in Europe, with a value of the indicator of 40.2% for 2012. The next two places are occupied by the countries from North and South America (29%) and the CIS countries (26%). The lowest degree of penetration was observed in Africa (1.4%)⁴.

Despite the preserved number of fixed lines (35 million), an increase, although slight (change of 0.2 percentage points in 2012 since 2011), was observed in the Arab countries of the "penetration of fixed telephone services" index. In 2012, a minimum drop was also observed in the CIS countries in terms of penetration of fixed telephone services (by 0.4 percentage points for a one-year period) and in the number of telephone lines. The African region did not register any development both in the "number of fixed telephone lines" index and in the "penetration of fixed

⁴ ITU World Telecommunication / ICT indicators database

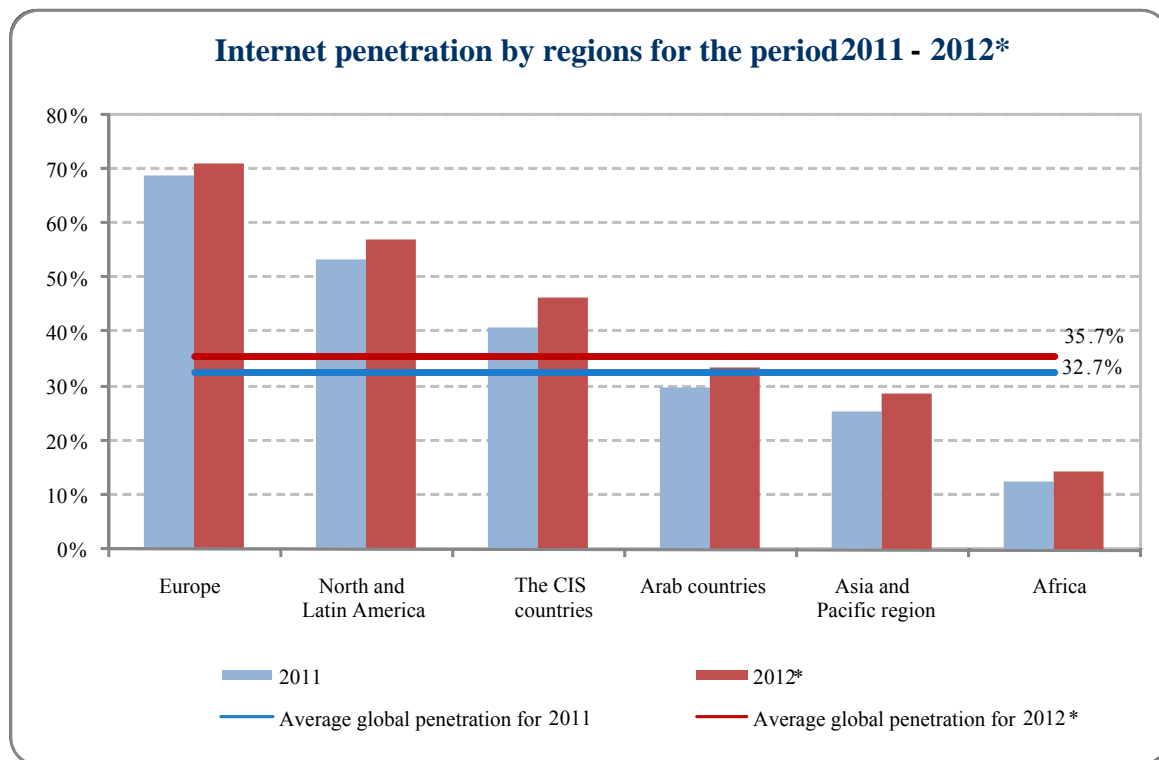
telephone services" index.

Internet

According to ITU data, the number of Internet users at the end of 2012 reached 2.497 billion (an increase of 9.9% since 2011), of which 1.584 billion are in the developing countries. The increased number of Internet users is mainly due to the African countries with a growth of 18.4% since 2011, and the CIS countries - a rise of 13.6% since the preceding year. On a world scale, penetration has reached 35.7% as its steady growth continues.

ITU data show that while in 2008, 25% of households worldwide had access to Internet services, at the end of 2012 this percentage has grown by 12.4 percentage points, thus reaching 37.4%. A minimum change in this indicator for a five-year period was reported in the African countries, only 3.7 percentage points, whereas the CIS countries registered a change of 25.3 percentage points.

The chart below shows internet penetration by regions for the period 2011 – 2012.



Note: The data for 2012 are based on ITU's forecast

Source: ITU

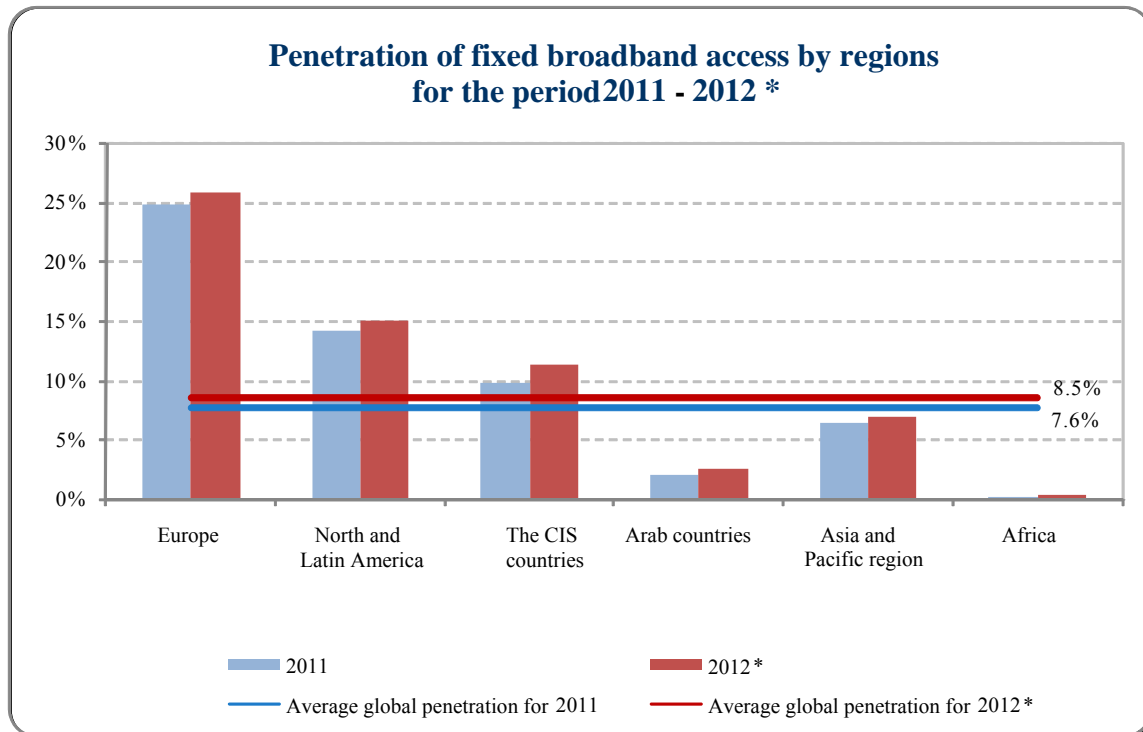
Figure 4

In 2012, the CIS countries once again reported highest degree of growth in the "Internet penetration" index of 5.5 percentage points for a one-year period. Although Europe retained its leading position in terms of Internet services penetration per 100 residents – 71.2%, the observed growth was minimal (2.2 percentage points since 2011). Second place was held by North and Latin America where Internet penetration reached 57.2% in 2012, an increase of 3.7 percentage points. The countries from Africa, Asia and the Pacific region, and the Arab region reported an "Internet services penetration" index below the average global level. The most insignificant change in this index was observed in African countries – 1.9 percentage points.

Fixed broadband Internet access

Users of fixed broadband access in 2012 grew by 8.5% since 2011 and reached 638 million. Penetration of fixed broadband access (9.1% in 2012) increased by 0.7 percentage points

since 2011⁵. Despite the increased consumption in the sector taking place at equal rates for the developing countries (a share of 49.5% of the total number of users for 2012) and for the developed countries (a share of 50.5% of the total number of users for 2012), penetration rate for the developing countries was only 5.5% (for Africa, this value is below 1%) and 25.9% for the developed countries⁶.



Note: The data for 2012 are based on ITU's forecast
Source: ITU

Figure 5

According to data of *Point Topic*⁷, in 2012, broadband access via DSL continued to occupy the highest share of 57%. For a one-year period (2011 – 2012), optical broadband access registered a growth of over 20%, as this access already occupies the second place in terms of importance, outstripping cable access.

Mobile broadband access

The mobile broadband access remains an important factor for the development of electronic communications, and in 2012 it registered a growth of 34.6%⁸, which in absolute value represents an increase in the number of subscribers by 400.44 million. According to ITU data, the equal growth in this segment of the electronic communications market and in the fixed broadband access results from the increased number of subscribers in both the developing countries (a share of 49.4% of the total number of users for 2012), and in the developed ones (a share of 50.6% of the total number of users for 2012). Subscribers of mobile broadband access continued to be several times (2.4) more than subscribers of fixed broadband access.

In 2012, the penetration rate of mobile broadband access services expanded by 5.6 percentage points since 2011, as it reached 22.1%.⁹

⁵ ITU – ITU Key Global Telecom Indicators for the World Telecommunication Service Sector

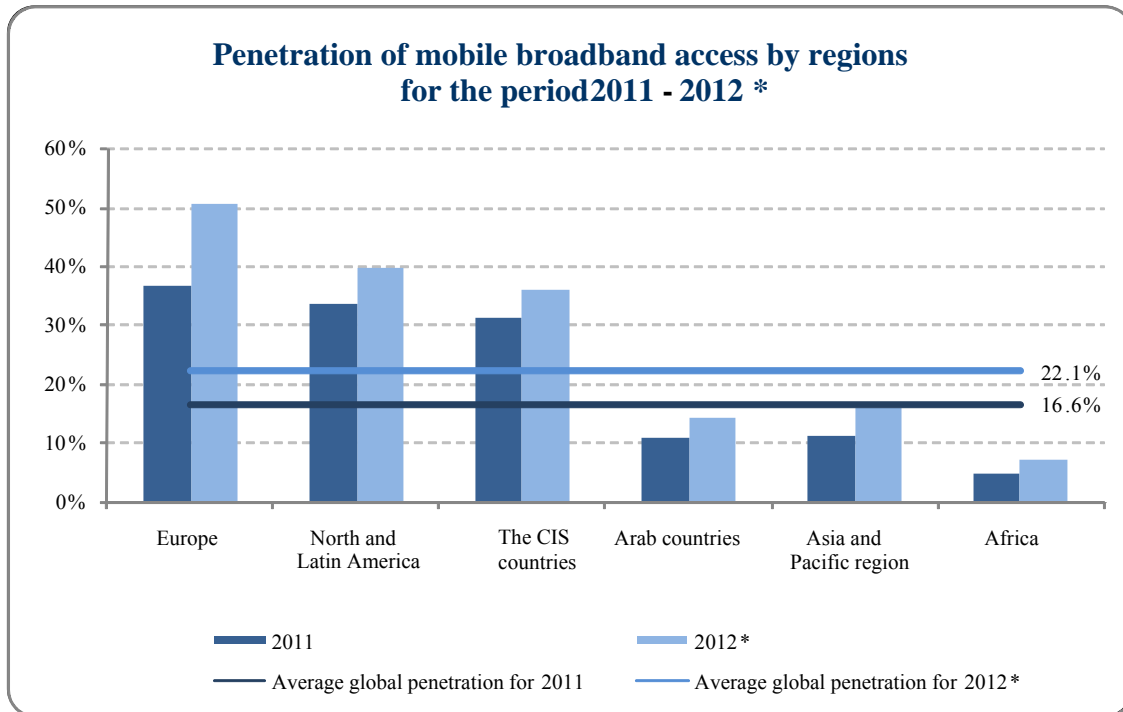
⁶ ITU – ITU Key Global Telecom Indicators for the World Telecommunication Service Sector

⁷ <http://point-topic.com/free-analysis/global-broadband-statistics-q4-2012-technology-trends/>

⁸ ITU – ITU Key Global Telecom Indicators for the World Telecommunication Service Sector

⁹ ITU – ITU Key Global Telecom Indicators for the World Telecommunication Service Sector

The figure below presents the global penetration of mobile broadband access by regions, for the period 2011 – 2012.



Note: The data for 2012 are based on ITU's forecast
Source: ITU

Figure 6

The data is displayed on Figure 5 and Figure 6 show that the penetration rate of mobile broadband Internet access continued to considerably outstrip the penetration of fixed broadband access in 2012. The penetration rate of mobile broadband access compared to 2011 is considerably higher than the one of the fixed broadband Internet access. The latter retains levels close to the ones achieved in the past years. In an absolute value, the greatest increase in the number of subscribers of mobile broadband access in 2012, compared to 2011, was observed in the countries from Asia and the Pacific region - 187 million.

Once again, European countries occupied the leading position in terms of broadband access, with penetration rate of fixed and mobile access of 25.8% and 50.5%, respectively. The lowest penetration of mobile broadband access was reported in Africa – 7.1%, which is by 2.1 percentage points higher than in 2011. The countries from North and South America and the CIS countries occupy the second and third place in terms of penetration of mobile broadband access – 39.8% and 36.0%, respectively.

2. Development prospects of the global electronic communications market

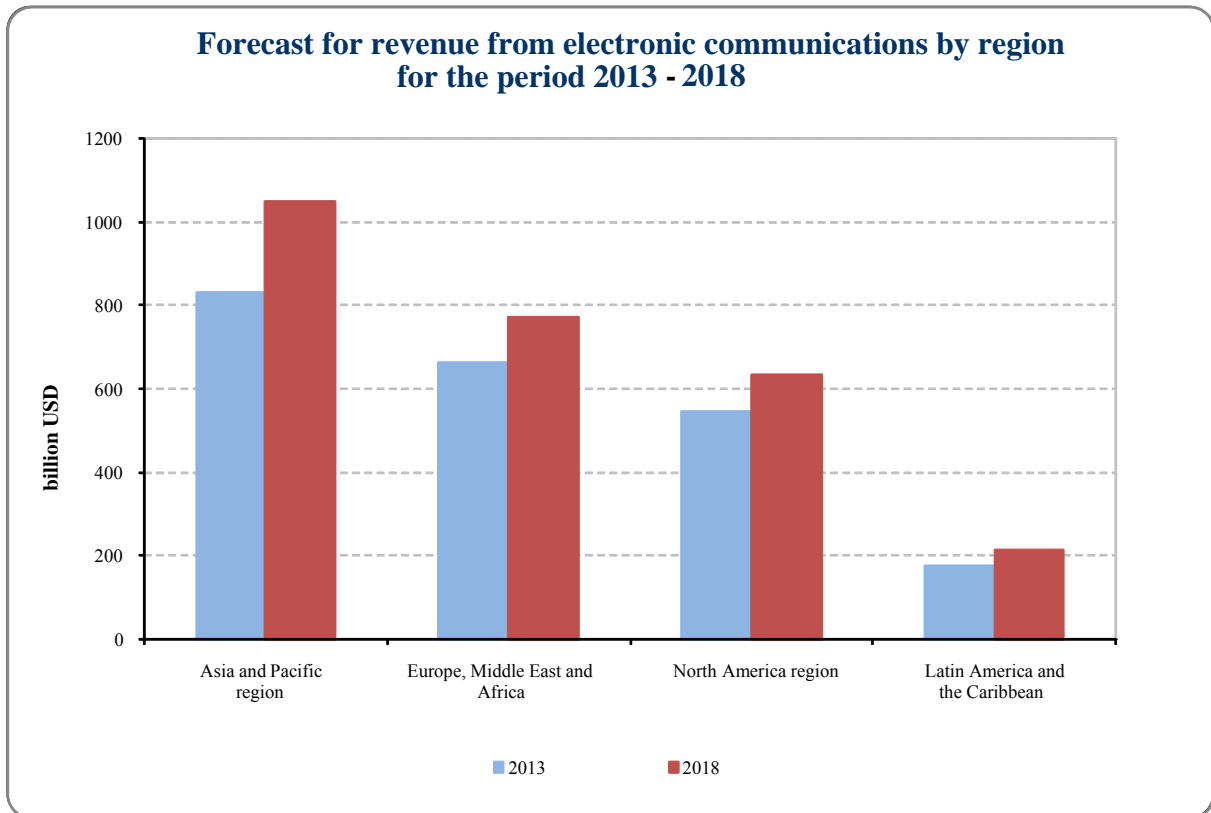
Leading research organizations are still cautious in their expectations for the development of the global electronic communications market both in the short term – 2013, and the midterm – the following five years. The telecommunication services market has not yet recovered from the adverse economic conditions of the past years, and the increase in revenue will be slight.

At the start of the current year, **Gartner Inc.**, one of the leading IT market research companies in the world, announced that in 2012 revenue from telecommunication services has

reached USD 1.66¹⁰ trillion, which represents an insignificant drop of 0.1%, from 2011. The results are below the expectations of *Gartner Inc* analysts who had forecasted a growth of 2.3%¹¹ and revenue of USD 1.74 trillion.

The 2013 forecast once again envisages an increase in revenue from the telecommunications services from 2.4%, compared to 2012, as they are expected to reach USD 1.7 trillion.

From a regional point of view, the assessment of the prospects for the global electronic communications market varies significantly (Figure 7).



Source: 2013 Telecommunications Industry Revue, Insight Research Corporation

Figure 7

The North America region is expected to develop at the slowest rate in the next five years, with an annual growth of 3%. This contrasts with last year's forecast which projected that in the period 2012 – 2017 this region will reach an annual growth of 3.8%. Europe, Middle East and Africa are expected to grow by 3.2% - significantly lower than the 5.5% forecast last year.

According to the analysts of *Insight Research*¹², over the next five years the Asia Pacific region along with Latin America and the Caribbean are once again expected to be the fastest growing regions. Dominated by the economies of China, Korea, Mexico and Brazil, these regions are expected to achieve annual growth rate in revenue of 4.7% and 4.1%, respectively. In contrast, last year's forecast projected that in the period 2012 – 2017, the growth will be 5.9% and 5.7%, respectively.¹³

The chart on Figure 8 displays data concerning the penetration rate of the different

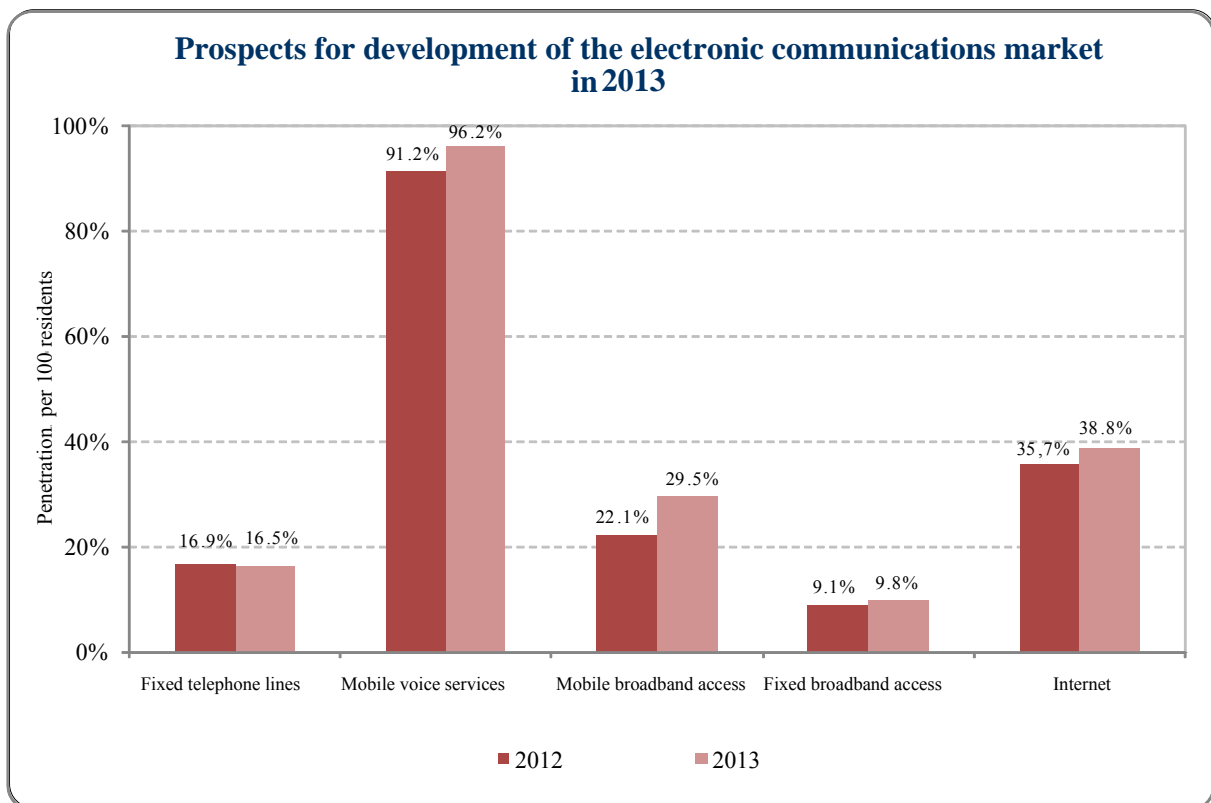
¹⁰ <http://www.gartner.com/newsroom/id/2292815>

¹¹ <http://www.gartner.com/newsroom/id/1888514>

¹² <http://www.insight-corp.com/reports/review13.asp>

¹³ <http://www.insight-corp.com/reports/review12.asp>

electronic communications services in a world scale, according to ITU estimate.



Source: 2013 ITU World Telecommunication/ICT indicators database¹⁴

Figure 8

As the data show, the only service which is expected to register a decline in the reviewed indicator in 2013, although to a small extent, is fixed telephony – 0.4 percentage points, compared with 2012. In an absolute value, this means by 14.6 million fixed telephone lines less, as they are expected to drop to 1.17 billion in 2013. Penetration rate of fixed broadband Internet access, calculated based on the number of subscribers, is expected to register a slight growth of approximately 0.7 percentage points at an annual basis. According to a forecast of the independent consulting firm *Broadbandtrends LLC*¹⁵, subscribers of fixed broadband Internet access will grow from 642 million in 2012 to 859 million by the end of 2018, as penetration based on households is expected to reach 45%, up from 34% in 2012. DSL will remain the dominant technology, but a drop of 6 percentage points is projected in the relative share of the number of its users in the total number of subscribers of fixed broadband access - from 63% in 2012 to 57% in 2018.

Globally, mobile services are having yet greater impact on the economic growth, stimulating many of the economic sectors which are considered to play a key role in overcoming the negative consequences of the deteriorated macroeconomic situation.

In 2013, the number of mobile services users worldwide is expected to near the number of the world population. The ITU estimate is 6.8 billion SIM cards, compared to 7.1 billion people on the planet at the end of 2013, as more than half will be from the Asia and Pacific region - 3.5 billion.

¹⁴ http://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2012/ITU_Key_2006-2013_ICT_data.xls

¹⁵ http://broadbandtrends.com/yahoo_site_admin/assets/docs/BBT_GlobalBBOutlook2013_131090_TOC.9143256.pdf

This forecast is also confirmed by the data contained in the report of the **World GSM Association (GSMA)**, presented at the Mobile World Congress in Barcelona, February 2013¹⁶, as the number of SIM cards is expected to reach 7.4 billion¹⁷ in 2013 and 9.7 billion by the end of 2017.¹⁸ GSMA expects a significant growth in the number of subscribers using 4G networks (LTE) – 920 million in 2017, while in 2012 their number was only 62 million.

According to ITU estimate, by the end of 2013, penetration rate of mobile voice services will have reached 96% in a global scale, or 128% in the developed world and 89% in the developing countries, as the growth rate of this indicator is expected to slow down.

The highest growth in the penetration rate in 2013, as compared to the year before, is expected to be registered by the mobile broadband access – over 7 percentage points. This type of service will also be preferred to the fixed broadband access in remote areas with not well developed infrastructure. The **GSMA** forecasts an increase in the number of subscribers of mobile broadband Internet access from 1.6 billion in 2012 to 5.1 billion in 2017. According to an analysis of the consulting firm *Analysis Mason Ltd*¹⁹, by the end of 2017, almost half the revenue from retail sales of mobile services will be generated from non-voice services.

The sector of electronic communication services is expected to remain comparatively stable during the economic instability, since telecommunications remain a key factor for economic growth worldwide. Stimulating innovations in many areas of the social life, they continue to have a strong influence on the social and economic progress in a global scale.

3. Legal and regulatory framework

At the end of December 2011, the Law on Electronic Communications was amended with a view to transpose Directive 2009/136/EC and Directive 2000/140/EC for amendment of the European regulatory framework for electronic communications networks and services. In 2012, the implementation of the above amendments to the regulations began. In execution of the statutory requirements and within the prescribed terms, CRC amended the secondary regulations in order to bring them into compliance with the legislative amendments.

In 2012, the Commission adopted and, respectively, brought into compliance the following secondary regulations:

- Technical requirements for the operation of electronic communication networks from a fixed radio service and related equipment (amended and supplemented SG, issue 101 of 18 December 2012);
- Methodology for the terms and procedure of relevant markets definition, analysis and assessment, and criteria for designating undertakings with significant market power (prom. SG, issue 89 of 13 November 2012);
- Rules for the conditions and procedure for transferring of authorizations for use of individually assigned scarce resource (amended and supplemented SG, issue 81 of 23 October 2012);
- Rules for carrying out electronic communications via radio equipment using frequency spectrum which does not need to be individually assigned (prom. SG, issue 47 of 22 June 2012);
- List of radio equipment using frequency bands harmonised throughout the EU and electronic communications terminal equipment (amended and supplemented SG, issue 47 of 22 June 2012);
- Technical requirements for the operation of land mobile networks and related equipment (amended SG, issue 101 of 18 December 2012);
- Functional specifications for implementing portability of national significant numbers in the event of change of the provider of public mobile telephone service (amended SG, issue 74 of 28 September 2012);

¹⁶ <http://www.gsmamobileeconomy.com/GSMA%20Mobile%20Economy%202013.pdf>

¹⁷ Including the number of M2M SIM cards.

¹⁸ <http://www.gsmamobileeconomy.com/GSMA%20Mobile%20Economy%202013.pdf>

¹⁹ <http://www.analysysmason.com/>

- Functional specifications for implementing portability of non-geographic numbers in the event of change of the respective service provider (amended SG, issue 74 of 2012);
- Functional specifications for implementing portability of geographic numbers in the event of change of the provider of the fixed telephone service and/or change of the address within one geographic national destination code (last amended SG, issue 74 of 28.09.2012);
 - Ordinance No. 1 of 22 July 2010 concerning the rules for use, distribution and the procedures under primary and secondary assignment for use, reservation and withdrawal of numbers, addresses and names (amended SG, issue 74 of 28.09.2012);
 - List of networks and services for operation of public electronic communications within general frame of requirements (prom. SG, issue 63 of 17 August 2012);
 - General requirements for provision of public electronic communications (amended and supplemented SG, issue 63 of 17 August 2012);
 - Technical requirements for the operation of electronic communication networks from a fixed satellite radio service, mobile satellite radio service and related equipment (amended and supplemented SG, issue 14 of 17 February 2012);
 - Technical requirements for the operation of electronic communication networks from a mobile radio service and related equipment (amended and supplemented SG, issue 14 of 17 February 2012);
 - Technical requirements for operation of terrestrial networks permitting provision of electronic communications services (prom. SG, issue 101 of 18 December 2012).

Regulatory decisions of CRC in 2012

- Decision No. 1361/2012 for analysis of the wholesale markets for call origination on the public telephone networks at a fixed location, and wholesale market for call termination on individual public telephone networks at a fixed location (Markets 2 and 3 of EC Recommendation 2007/879/EC of 17 December 2007);
- Decision No.1362/2012 for analysis of the wholesale market for voice call termination on individual mobile networks (Market 7 of EC Recommendation 2007/879/EC of 17 December 2007);
- Decision No. 1603/2012 for approving the introduced by BTC draft [Reference Offer](#) for access to passive infrastructure and [binding direction for its amendment](#);
- Decision No. 1882/23.08.2012 for determining the form and methodology for accounting separation;
- Decision No. 1954/2012 for analysis of the retail market for leased lines (Market 7 of EC Recommendation 2003/311/EC of 11 February 2003), the market for wholesale terminating segments of leased lines (Market 14 of EC Recommendation 2003/311/EC of 11 February 2003, respectively, Market 6 of EC Recommendation 2007/879/EC of 17 December 2007) and the market for wholesale trunk segments of leased lines (Market 13 of EC Recommendation 2003/311/EC of 11 February 2003);
- Decisions No. 1959-1982/2012 with binding direction to the undertakings providing public telephone services to amend certain clauses in their general conditions.

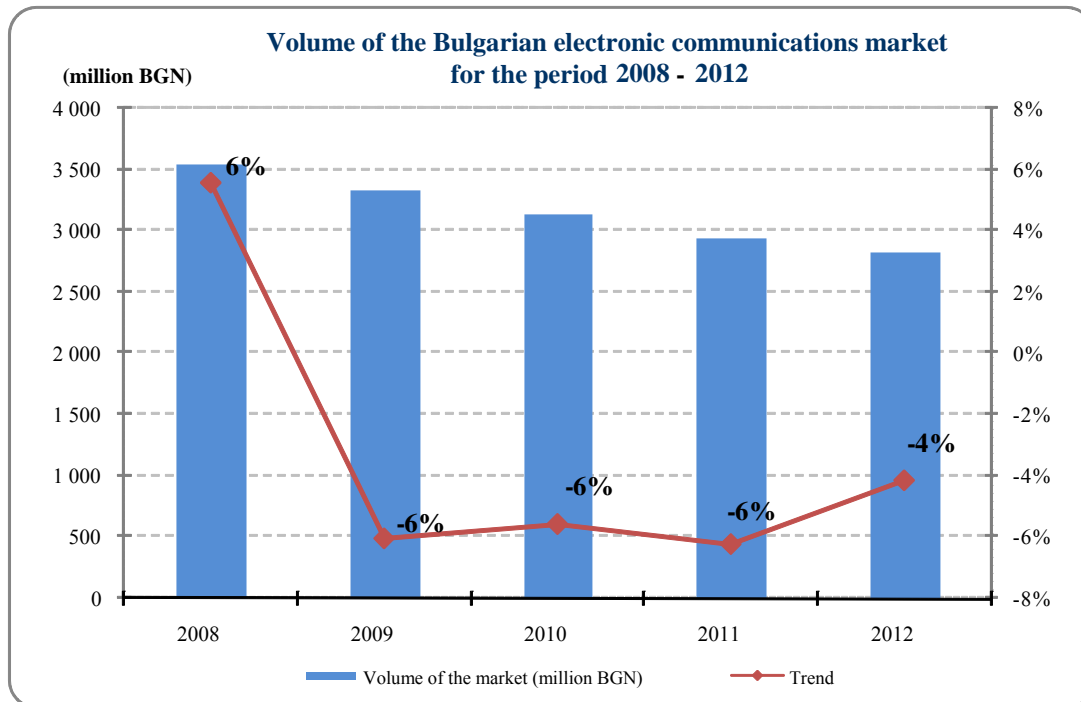
4. Volume and structure of the Bulgarian electronic communications market

4.1. Volume of the market

The Bulgarian Electronic communications market registered a decline for another consecutive year. In 2012, the number of undertakings registered with CRC for the provision of public electronic communications dropped to 1153, i.e. by 9.12% less, compared to 2011, which is due both to termination of activity of economic entities as a result of their deteriorated economic state, and sales and mergers of undertakings. For the period 2010 – 2011, the number of undertakings providing electronic communication services fell by 5.38%, which is by 3.74 percentage points less than the period 2011 – 2012.

The volume²⁰ of the electronic communications market for 2012, calculated based on summarized data provided by 1027 undertakings, representing 89% of those registered, reached BGN 2,822 billion. The number of undertakings that declared to have been actually providing public electronic communications in 2012 is 869. The total volume of the market includes revenue generated by 24 undertakings which in 2012 submitted to CRC a notice for termination of their activity and reported revenue from the provision of public electronic communications by sending a questionnaire for activity reporting for the current year.

The changes in the volume of the electronic communications market in the country for the period 2008 – 2012 are displayed on Figure 9.



Source: Data submitted to CRC

Figure 9

As it is clear from the data provided, the total volume of the Bulgarian electronic communications market in 2012 (BGN 2.822 billion) dropped by 4%, as compared to 2011, which in absolute terms represents a decline of BGN 123 million. Compared to the previous three-year period (2009 – 2011), when the total volume of the electronic communications market registered a continuous drop of 6%, this indicator fell by 2 percentage points in 2012. This change is due to the growth of revenue in some market segments: data transfer and/or Internet access services, bundled services and other services including the provision of duct network, satellite systems access services, co-location services other than the provided for interconnection and unbundled access, as well as other services.

The total volume of the electronic communications market in 2012 represented 3.6% of the total GDP²¹ of Bulgaria.

4.2. Structure of the market

The review of the Bulgarian public electronic communications market in 2012 is focused

²⁰ The volume of the market was calculated based on information submitted by the undertakings on the overall activity revenue.

²¹ Calculated using current prices. Source: NSI, http://www.nsi.bg/ORPDOCS/GDP_1.1.1.xls

on 6 main segments (see Table 1) determined according to the type of services provided.

Table 1 shows revenue from the provision of public electronic communications in Bulgaria for the period 2010 – 2012 and its breakdown by main market segments.

Table 1

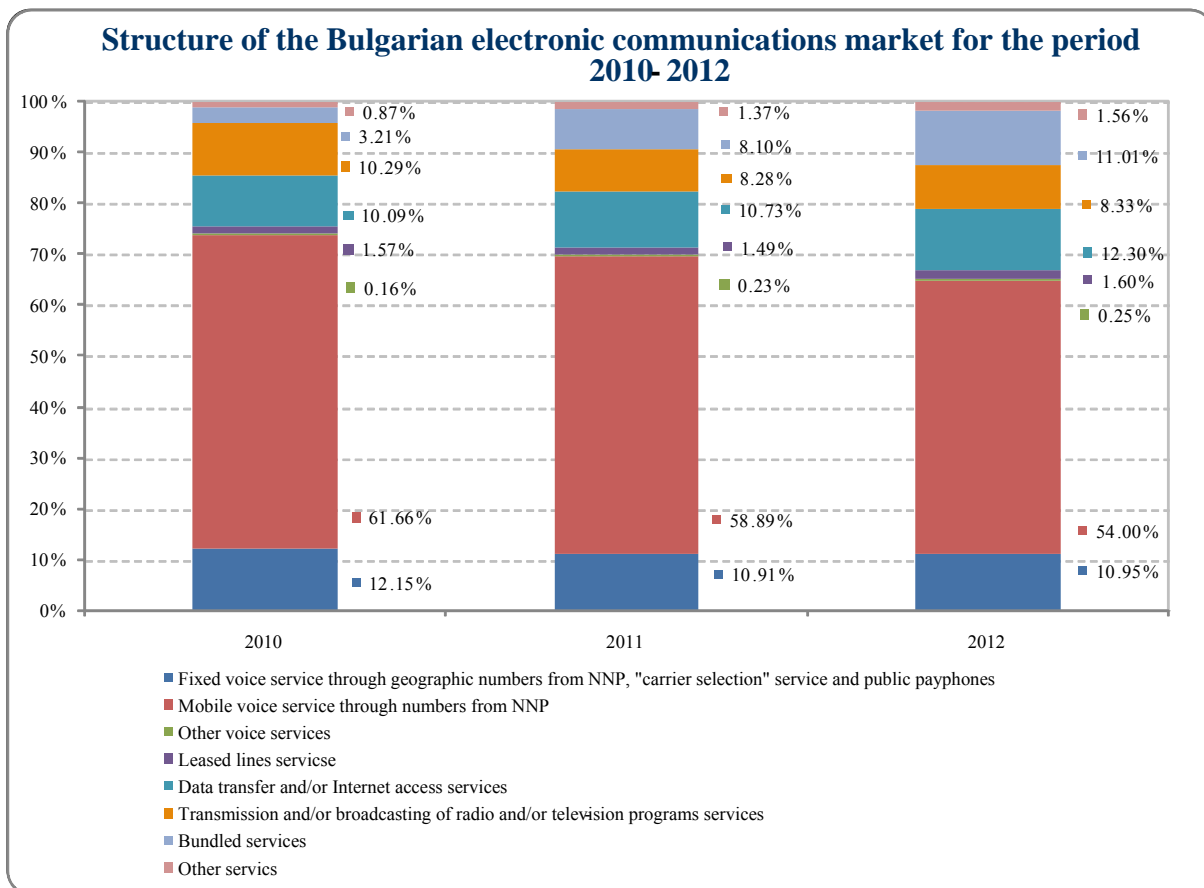
Structure of the public electronic communications market in Bulgaria according to the type of services provided for the period 2010 – 2012

Services related to the provision of public electronic communications	Revenue (million BGN)		
	2010	2011	2012
1. Voice telephone services	2,323.132	2,061.969	1,839.843
1.1. Fixed voice service through geographic numbers from NNP, “carrier selection” service and public payphones	381.475	321.109	308.957
1.2. Mobile voice service through number from NNP	1,936.515	1,734.082	1,523.807
1.3. Other voice services	5.142	6.778	7.079
2. Leased lines services	49.361	43.906	45.023
3. Data transfer and/or Internet access services	316.976	316.048	346.962
4. Transmission and/or broadcasting of radio and/or television programs	323.335	243.810	235.157
5. Bundled services	100.691	238.487	310.557
6. Other services ¹	27.299	40.207	44.122
Total	3,140.795	2,944.427	2,821.664

¹ The segment includes revenues from provision of duct access, satellite systems access services, co-location services other than the provided for interconnection and unbundled access, as well as other services

Source: Data submitted to CRC

Figure 10 presents the change in the relative weight (calculated on the basis of overall activity revenue) of the main segments in the structure of the electronic communications market for the period 2010 – 2012.



Source: Data submitted to CRC

Figure 10

The above data (Table 1 and Figure 10) show that voice telephone services (fixed, mobile, and other telephone services) still hold the highest share in the public electronic communications market – 65.2%, despite the reported drop by 4.8 percentage points since 2011. The next place is occupied by data transfer and/or Internet access services offered separately which make up 12.30% of the total market volume, or an increase of 1.6 percentage points is observed since 2011. Third in terms of importance in the total volume of the public electronic communications market in Bulgaria in 2012 are bundled services which formed 11.01%. The increase of 2.9 percentage points since 2011 is mostly due to the continuing development of bundled services as a result of the marketing policy of undertakings and the users' tending to use the same provider for different electronic communication services, mainly Internet access and television. The share of transmission and/or broadcasting of radio and TV programs services provided stand-alone was 8.33% in 2012, with a minimal increase of 0.05 percentage points since 2011, which ranks them fourth in the total market volume (in 2011, these services occupied third place with a share of 8.28%).

Based on the above information, the following main conclusions were drawn regarding the Bulgarian electronic communications market development in 2012, as compared to 2011:

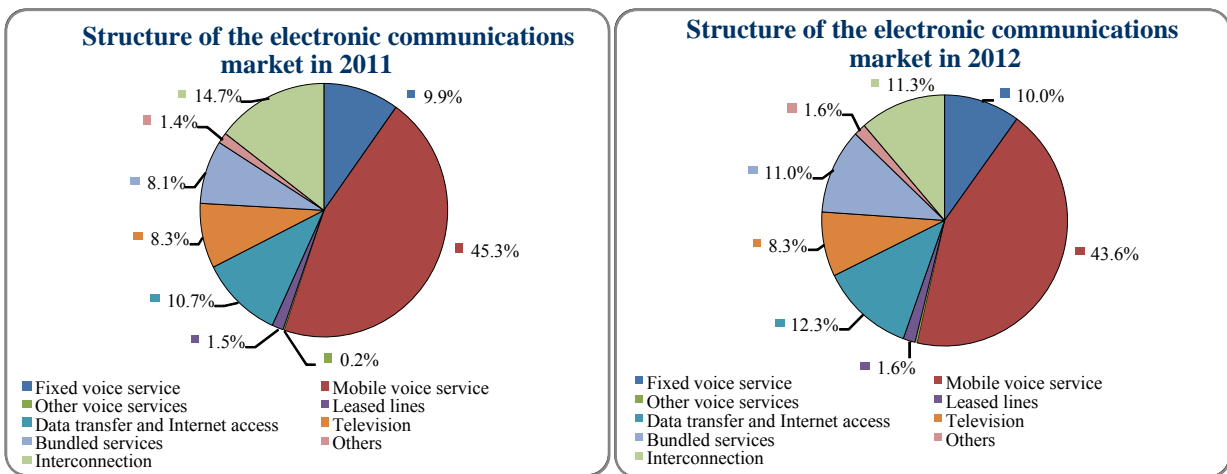
- A decline (in an absolute value) of 10.77% was registered in the "Voice telephone services" segment, as the highest decrease was observed in the mobile voice service – 12.13%.
- An increase of 2.54% was registered in the "Leased lines services" segment, which is due to the increased revenue from the wholesale provision of international leased lines;
- The volume of revenue in the "Data transfer and/or Internet access" segment increased by 9.78%;
- A decline of 3.55% was reported in the "Transmission and/or broadcasting of radio and

television programs services" segment;

- The volume of revenue in the “Bundled services” segment registered an increase of 30.22%;
- A growth was observed in the “Other services” segment – 9.74% which is mostly due to the increase of revenue from satellite system access services (increase of 27.34% since 2011) and shared co-location services (increase of 27.78% since 2011). The third service "co-location and other forms of shared use, including the provision of towers, masts and other", included in the "other services" segment, registered a minimal drop - 1.83%, yet it makes up 45% of the total volume of the segment.

Interconnection

Figures 11 and 12 present interconnection as an individual segment in the general structure of the electronic communications market.



Note: When calculating the volume of the "interconnection" segment, revenue is included from: physical interconnection (ports, lines, and connection points); traffic termination (arising from fixed/mobile undertakings and WiMax networks both in the country and abroad, including SMS and MMS traffic); origination and transit.

Source: Data submitted to CRC

Source: Data submitted to CRC

Figure 11

Figure 12

In 2012, the volume of interconnection revenue dropped by 26%, compared to 2011, which is mainly due to the reduction of wholesale termination rates on fixed networks and wholesale termination rates on individual mobile networks, effective as of 01.07.2012 (Decision 1361/31.05.2012 and Decision No. 1362/31.05.2012). This decrease (3.4 percentage points) also reflected on the share of the interconnection segment (11.3% in 2012 against 14.7% in 2011) in the total volume of the electronic communications market.

Investments

In 2012, the number of undertakings which invested in deployment and maintenance of public electronic networks and services was 485, or 58% of all undertakings that were active during the year. The total amount of these investments was BGN 548 million, down by 24% compared to resources invested in 2011, which is mainly due to the risks arising from the world economic recession. For 2013, 406 undertakings intend to invest approximately BGN 555 million in the activity related to provision of public electronic communications.

5. Prospects for development of the Bulgarian electronic communications market

In the conditions of a continuing economic crisis, the electronic communications market in Bulgaria once again registered a decline, as its development rate is expected to slow down, yet this will not manage to influence the negative downward trend in the total market volume in the short run. The following factors will continue to have a main influence on the development of the electronic communications market:

- Growing competition between undertakings;
- Increasing supply and demand of bundled and convergent services;
- Significant growth in the development of the broadband Internet access.

Growing competition between undertakings

Creating conditions for the development and maintenance of an effective competition is a process stimulated by CRC through its regulatory mechanisms. On the markets defined by CRC as susceptible to ex-ante regulation are imposed obligations pro rata the established competition problems, aimed at restricting the uncompetitive behaviour of the SMP undertakings.

Supply of bundled services

The supply of bundled electronic communications services by a growing number of undertakings has been a distinctive trend in the last years. The bundled offers typically include different combinations of fixed and mobile voice services, broadband Internet, cable, satellite and IP television, offered by the incumbent, mobile and cable undertakings, and increasingly by undertakings offering Internet access and data transfer services. It should be noted that 80% of subscribers using bundled services have the Internet access service included. In 2012, the highest relative share based on subscribers and revenue continued to be held by mobile voice service and Internet access (fixed and mobile). In the future, the intensified supply of bundled services comprising Internet access is expected to continue, as the number of users accessing the Internet through mobile devices will exceed that of fixed Internet access users.

Prospects for development of the electronic communications market segments in Bulgaria:

- In the mobile services segment, the future development will be related to:
- preservation and intensification of the trend for increase in the number of users of fixed voice telephone services who stop using them and replace them with mobile ones;
 - redistribution of the current number of subscribers and, to a lesser extent, adding new ones;
 - decline in the user's average monthly costs for mobile telephone services;
 - increased number of promotions including discounts on monthly subscription fees, inclusion of additional minutes for outgoing calls, bundles of mobile Internet and data;
 - intensified competition between undertakings and decrease in the price levels of some mobile services provided that this market segment is successfully entered by other undertakings capable of offering sufficiently attractive conditions for bundled services to their potential and existing subscribers;
 - increase in the consumption of bundled mobile telephone services such as mobile Internet and television, as a result of the mobile undertakings' entering into new segments of the electronic communication services markets;
 - change in the structure of the mobile market in general – to end users, services related to Internet access, content, etc., are expected to gain greater importance, considering also the growth in sales of smartphones, tablets and other user devices. Although this type of telephones will play a key role on the mobile telephone market in the future, the lower price of mobile devices

without "smart" functions will allow them to remain a preferred choice for the users in the short run.

In the fixed voice services segment, the development is expected to include the following:

- preservation of the trend for decrease in the number of subscribers of the incumbent operator at the expense of subscribers of alternative undertakings;
- continued decline in the relative share of revenue from fixed voice services in the total volume of the electronic communications market;
- increase in the number of subscribers of fixed voice services offered in a bundle with other services, such as mobile telephone service, television and Internet access.

In the leased lines segment, the increased process of migration on part of users from traditional to alternative leased lines (based on Ethernet network protocol) will continue. Alternative lines have functional characteristics analogous to the traditional ones, but they have more advantages, such as comparable price, easy maintenance, cheap terminal devices and much higher traffic exchange speed.

In the "transmission and/or broadcasting of radio and TV programs" segment, a trend is observed towards yet greater increase in the number of subscribers of satellite and IP-based television at the expense of those of cable television, in addition to an intensified supply and demand of bundled service including satellite television.

A factor which could influence the competition and prices of the supplied paid television on the market is the scheduled transition from analogue to digital broadcasting of radio and television programs in Bulgaria as of 1 September 2013. The terrestrial digital broadcasting of radio and television programs will enable the viewers to receive free-of-charge access on almost the entire territory of the country to a considerably higher number of Bulgarian television programs, compared to the present one.

In the Internet segment, a significant increase was observed in the number of subscribers of mobile Internet access (via data cards and modems), an increased in the number of subscribers using bundled Internet access services, and an intensified migration from traditional access technologies to optical and hybrid networks.

In conclusion, it may be noted that the future development of the electronic communications market will continue to be mainly focused on offering convergent and bundled services, with a predominant impact of services including mobile and fixed broadband Internet access.